

Response to First Office Action  
Docket No. 028.0371.US.UTLAmendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1        1. (original): A method for converting directly synthesis gas to  
2        hydrocarbons with high diesel distillates content through Fischer-Tropsch  
3        process, wherein:

4                (1) the synthetic fuels with diesel distillates as primary products are  
5        produced through one-step synthesis technique from synthesis gas;

6                (2) synthesis gas is composed of hydrogen and carbon monoxide with the  
7        mole ratio of hydrogen to carbon monoxide within the range of 1 to 4;

8                (3) activated carbon supported cobalt based catalysts were employed;

9                (4) synthesis conditions comprise reaction temperature within the range of  
10       120 to 400°C, reaction pressure within the range of 0.5 to 10.0 MPa, volume  
11       hourly space velocity of mixture of hydrogen and carbon monoxide within the  
12       range of 100 to 5000.

1        2. (original): A method of claim 1, wherein said Fischer-Tropsch  
2       process is a non-shifting Fischer-Tropsch process over an activated carbon  
3       supported cobalt based catalyst.

1        3. (original): A method of claim 1, wherein the diesel distillates  
2       useful as a diesel fuel heavier than gasoline or as a blending component for a  
3       distillate fuel comprising: 180 to 380°C fraction directly synthesized from  
4       Fischer-Tropsch process and containing at least 95 wt % paraffins with an iso to  
5       normal ratio of about 0.03 to 0.3, <50 ppm (wt) of sulfur and nitrogen, less than  
6       about 2 wt % unsaturates, and about 0.001 to less than 0.3 wt % oxygen.

1        4. (original): The method of claim 3, wherein the oxygen is present  
2       primarily as C<sub>12</sub> + linear alcohols.

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1           5. (original): The method of claim 3, wherein the diesel fuels are  
2 characterized by a cetane number of at least 60 to 70.

1           6. (original): The method of claim 3, wherein the content of nitrogen  
2 and sulfur in fuels is less than or equal to 15 ppm (wt).

1           7. (original): The method of claim 6, wherein the content of nitrogen  
2 and sulfur is less than or equal to 10 ppm (wt).

1           Claims 8-12 (cancelled).